everything. Three hours after beginning the oil the bowels began to move, and a good recovery ensued.

Dr. Langdon mentions in the same journal eight cases where relief had been obtained from large doses of olive oil.—*Cincinnati Lancet-Clinic*, No. 3, 1891.

MEDICINE.

UNDER THE CHARGE OF

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CARDIAC NERVE-STORMS; ESSENTIAL TACHYCARDIA.

In a paper read before the Philadelphia Neurological Society, **Wood** (*University Medical Magazine*, March, 1891) discusses the subject of cardiac nerve-storms, with especial reference to essential tachycardia. "Nerve-storm" is a convenient clinical designation for a sudden, violent, temporary disturbance of the nervous system, either sensory or motor. The attacks of migraine, of angina pectoris, and the crises of locomotor ataxia, are examples of sensory nerve-storms; the paroxysms of epilepsy and of tachycardia, examples of motor nerve-storms. Tachycardia, or excessive rapidity of cardiac action, may result—(1) from paralysis of the pneumogastric nerve, (2) from reflex influences, or (3) as a part of a neurosis. Such a condition, however, is not a true nerve-storm. To distinguish the latter from the former the name paroxysmal tachycardia is given to the true cardiac motor nerve-storms, with the qualification "essential" when no etiological or exciting moment can be recognized. The condition shows no tendency to shorten life or to develop organic disease, and is compatible with great mental and physical activity. The paroxysms recur at varying intervals, are unattended with pronounced pain or excessive distress, and may sometimes be arrested by the injection of cold or hot fluids, by a deep inspiration, or by other procedures which stimulate the cardiac inhibitory centre. There is a curious parallelism between the tachycardiac nerve-storm and the epileptiform convulsion. Wood believes the mechanism of tachycardia to be dependent upon a discharging lesion affecting the centres of the cardiac accelerator nerve.

PULMONARY SYPHILIS.

Lancereaux (*L'Union Médicale*, January 29 and 31, 1891) has presented an able contribution to the subject of pulmonary syphilis. The condition is relatively infrequent. Its study is difficult because the lesions so closely resemble those of tuberculosis. The pulmonary complications of syphilis belong especially to the third stage, and appear in two forms: as a diffuse sclerosis, the less common, and as circumscribed gummata. In addition, there is always fibroid thickening of the related pleura. The changes are usually confined to the lower lobes. More rarely they appear at the base of the upper lobe, and only exceptionally at the apex. With them may be associated syphilitic lesions of the air-passages, of the mouth, of the testicles, or even of the brain. The fibrosis of the lung is not homogeneous in its distribution, but appears in dense bands following the lines of lymphatics or radiating from a bronchus or bloodvessel. The intervening tissue is indurated or emphysematous, but not pigmented. The bronchi are compressed and the alveoli filled with leucocytes and desquamated cells. The bronchi may ultimately undergo dilatation. Of gummata, there are rarely more than eight or ten present in a lung. They vary in size from a pea to a large nut, and consist of a central and peripheral zone. The former is made up of disorganized elements, hyaline and slightly granular, surrounding a bloodvessel, which may be recognized by its elastic membrane and some blood corpuscles within its contracted lumen. The peripheral zone is made up of small, round cells, resembling the elements of embryonal connective-tissue, and of a large number of fusiform cells and vessels, of which the walls are thick but the lumen free. The process is thus a peri-arteritis, extending eccentrically, ultimately invading also the other tissues of the vessel and narrowing its lumen, as a consequence of which the centre of the gumma becomes granular and fatty. This central portion may become dry and undergo absorption with subsequent cicatrization, or it may undergo softening and ulcerate into an adjacent bronchial tube. The condition is to be distinguished from the condensation of tuberculosis, of lepra, and of impaludism. When the process in the lungs is tuberculosis it is usually seated at the apex, attended with caverns and infiltration in the neighborhood, with miliary granulations, having peculiar histological and bacteriological characters. If the pulmonary fibrosis is leprous there are other external evidences of lepra, and it may be possible to find the bacillus of lepra in the sputum. The fibrosis of impaludism is compact and uniform, and has a marbled appearance, with a bright, glistening section. The lung is enlarged.

The existence of the disease may escape most careful observation. There may be slight impairment of the percussion resonance, with increased resistance, over irregular areas at the lower half of the chest, feebleness of vesicular murmur, perhaps râles, and rarely a friction-sound. Cough, at first dry, may become moist, with muco-purulent expectoration and possibly hæmoptysis. Dyspnœa and oppression may also be present. Fever is absent, unless there be ulceration or suppuration. The face is pale, but not cachectic. Emaciation is not decided unless the liver and spleen are also involved.

The diagnosis is extremely difficult. It depends upon the localization of the lesions in the lower half of the lung, the recognition of lesions in other parts of the body or a history of syphilis, the absence of fever, of emaciation, of tubercle bacilli in the sputum. The treatment does not differ from that of syphilis under other conditions.

THE PHENYL-HYDRAZIN TEST FOR SUGAR.

HAVILBURG (*Centralbl. für klin. Medicin*, January 31, 1891), of Rio de Janeiro, proposes a modification of the Fischer-Jaksch test for the presence of sugar in the urine, which he considers more reliable. Two parts of phenylhydrazin hydrochlorate and three of sodium acetate are added to half a test-tubeful of water, to which a like quantity of urine to be tested is added. Instead of boiling over a water-bath the mixture is shaken with chloroform. In a little time the fluids separate. If sugar be present canary-yellow crystals appear in the upper layer. The reaction is more striking if the fluid is boiled and permitted to cool before the addition of chloroform. Havilburg suggests that the procedure might be adapted for use as a ready means of quantitative determination of the amount of sugar present.

SERUM OF DOGS' BLOOD IN THE TREATMENT OF TUBERCULOSIS.

Having observed that subcutaneous injections of cultures of the staphylococcus pyosepticus caused death in rabbits, while dogs escaped, **RICHET** (*L'Union Médicale*, January 31, 1891) found that transfusion of dogs' blood into the peritoneal cavity of rabbits conferred upon the latter immunity against the staphylococcus pyosepticus. Reasoning in the same line, Richet conceived that injections of the blood of an animal refractory to tuberculosis into a susceptible animal would confer upon the latter immunity against tuberculosis. Ten rabbits were given intra-peritoneal injections of dogs' blood, followed by injections of cultures of the bacillus tuberculosis, and ten others, for control, received the latter without the former. At the end of three months the rabbits of the first series had gained weight and become plump, while of those of the second some were dead of tuberculosis and others were emaciated. At the end of six months, however, the surviving rabbits of both series were all tuberculous and in the same apparent condition. The conclusion is, that intra-peritoneal injections of dogs' blood in rabbits retards but does not prevent the development of tuberculosis. But one injection was made in each instance, which if repeated might indefinitely retard the development of the disease. It was now proposed to apply the method, modified, to man. The serum of dogs' blood was separated and injected under the skin. To obtain the serum, the carotid artery of a dog is exposed, a ligature placed above, a forceps below the point at which the vessel is to be cut, a sterilized glass canula introduced into the proximal end of the vessel and connected by a rubber tube with a Pasteur bulb. The forceps is removed, one bulb filled, closed with a plug of cotton, and another filled, and so on. The bulbs are put aside for twenty-four hours. Corpuscles and fibrin gravitate to the bottom. The serum floats on top. So as not to be obliged to kill a dog for each injection or to sacrifice a bulb, Richet has had made smaller bulbs, each with a capacity for sufficient fluid for one or two injections. These are oval, elongated, and terminate at each extremity in a fine tube. To fill one it is plunged by one extremity into the serum which is aspirated at the other. For preservation, the extremities are sealed in the flame of a lamp. To be sure that the fluid is sterile it is placed for forty-eight hours in a steam chamber. If, at the end of this time it is still limpid, it is kept, but if turbid it is thrown away. When it is desired to use the serum the ends of the bulb are broken and one or two cubic centimetres (fifteen to thirty minims) taken up into a syringe. The injections were made in some fifty cases during six weeks by Langlois, Héricourt, and Saint-Hilaire. The results obtained have been encouraging. The injections have been unattended with accident, local or general, with fever, or with syncope. They are entirely inoffensive. Without theorizing as to the mode of action of the serum of dogs' blood, Richet believes that it contains substances chemically antagonistic to the development of the bacillus tuberculosis.

AORTIC ANEURISM COMMUNICATING WITH THE SUPERIOR VENA CAVA.

ORD (*British Medical Journal*, February 21, 1891) presented to the Pathological Society of London a specimen taken from a man of forty-three, without a history of alcoholism or syphilis. Six months before death the patient had perceived a sensation of pricking in the right side of the chest, with dysphagia and inability to lie on the left side. The face and ears became livid, the right side of the neck and chest œdematous, with turgid, superficial veins. There was no visible tumor of the chest, but the percussion-note was dull from the right border of the sternum outward, between the upper borders of the second and fourth ribs, over which area there was pulsation but no thrill. Auscultation revealed a long, continuous humming murmur of varying intensity, more sonorous during the cardiac systole, fainter during diastole, conducted into the neck and heard over the entire posterior aspect of the right chest. The area of cardiac dulness was increased, and there was an apical, musical, systolic murmur distinct from the continuous murmur. The radial pulses were equal, the arteries thickened. There was neither ascites nor anasarca. There were at first signs of improvement, but subsequently the facial œdema and the dyspnœa increased and death occurred rather suddenly. At the autopsy the right pleural cavity contained about eight pints of blood, which was found to have come by a small opening from an aneurism about the size of an orange, situated two inches above the valves of the aorta. The cavity of the sac of the aneurism, which contained only a little pale, adherent clot, communicated by a slit about half an inch long, with the superior vena cava two inches below the union of the innominate veins. The first part of the aorta also was unhealthy. In the discussion it was brought out that murmurs simulating that described are occasionally heard over vascular sarcomata within the thorax and elsewhere.

IDIOGLOSSIA.

DR. HALE WHITE and MR. GOLDING BIRD brought forward (Royal Medical and Chirurgical Society, March) two boys, brothers, thought by their parents to be suffering from deaf-mutism. This was not so; they heard well and expressed themselves in articulate sounds. These sounds were unlike those of any known language, but the same sound was always used by the same child to express the same word. Each child had thus a language of its own, and the authors have (at the suggestion of Dr. Perry) named the condition "idioglossia." The elder sister of these boys was slightly affected. All the children were remarkably intelligent, and could read any book and understand what they read, and wrote English correctly. There was no observable physical defect. One of them was left-handed. There were traces of insanity in the family. The treatment adopted had been careful oral training.

After referring to several points of interest in connection with these cases, the authors discussed the nature, origin, and treatment of the affection, and referred to several other recorded cases.

Dr. Frederick Taylor reported a similar case. The boy was aged eight and a half years, and had no physical defect beyond very slight arching of the palate. He had never talked properly, and when he first came under observation was almost unintelligible. He, however, understood what was said to him, could read short words, and could write in a child's round hand. When first seen his pronunciation of many consonants, especially p, t, k, s, was defective, and he added the syllables "ida," "eda," to nearly every word that he spoke. He had been submitted to a modified oral instruction, and was after some months much better.

His pronunciation of the Lord's Prayer on December 20th and February 3d was as follows:

	Our	*Father*	*which*	*art*	*in*	*heaven,*
Dec. 20*th.*—	Ouarda	farada	id	arda	a	haida
Feb. 3*d.* —	Ouer	faerda	we	ad	a	evven
	Hallowed	*be*	*Thy*	*name.*		
Dec. 20*th.*—	Howarda	beda	adarda	dene		
Feb. 3*d.* —	Alloeda	be	Thy	name.		

The author regarded the case as mainly one of defect of articulation, the centres for which might be regarded as less apt for education than those of average individuals.

Dr. Pye-Smith agreed with Dr. Taylor that the term "idioglossia" was not the best one to express the condition, which was not a language but an imperfect form of English, or rather English imperfectly pronounced. He noticed that with labials and gutturals differences well known to philologists were found, as "d" for "l," "g" for "y," etc. The prefixing of vowels was, he said, curious, and compared the French work "espèce" with the Latin "species." The addition of terminals also was well known. They seemed to him to be extreme cases of what was called in America "baby language," complicated, perhaps, in some of the cases by some physical defect, as nasal obstruction.

Dr. Hadden referred to two cases of a similar nature published by him in the *Journal of Mental Science*. He suggested that the best treatment was by isolation. His first case was left-handed, and his father had died in an asylum. He agreed with the previous speakers that the term "idioglossia" was not a satisfactory one.

Mr. Spencer Watson thought that the cases under discussion might belong to the class of deaf-mutes, and that there might be errors of hearing comparable to errors of refraction, and that the condition could be removed by education. The defects could be attributed partly to defective hearing, partly to imitation, and partly to adenoid growths in the posterior nares. It was not necessary to assume any central nervous defect.

Dr. Wilks thought it was a question of speech rather than of language.

Dr. Hale White, in reply, defended the term idioglossia. He regretted that nobody had been able to associate the condition with the left-handedness that was present in so many of the cases. In his cases there had been no physical defect except possibly some nasal obstruction in one case.

The So-called Parasitic Bodies in Epithelioma.

In connection with what has appeared in the journals of late with reference to the parasitic nature of epitheliomata, the observations of **Welch** (*Johns Hopk. Hosp. Bull.*, 1890, 97) are of great interest. He has found specimens of carcinomata whose cells contained bodies which very closely resembled in appearance and behavior with coloring reagents many of those which have, have spoken of as microörganisms. He describes some of the bodies of different shapes and different characteristics which he has observed, and says that while their nature cannot always be satisfactorily determined, it is entirely premature and unwarranted, on any evidence yet brought forward, to regard them as sporozoa or other forms of parasites. Many of these bodies, so far as flat-celled epithelioma are concerned, can be explained: 1. As masses of keratin, a part of the protoplasm having undergone in a circumscribed area the keratine metamorphosis, while the rest remains granular. 2. As irregular masses of eleidin or kerato-hyaline. 3. As included leucocytes undergoing degenerative changes, with or without fragmentation of nuclei. 4. As scattered nuclear fragments derived from the preceding. Just as epithelioma is essentially a typical growth of epithelium, so it is not surprising to find various typical metamorphoses of the epithelial cells in it.

Pulsus Bigeminus Complicated by a Quadruple Aortic Murmur.

J. Wallace Anderson (*Glasgow Medical Journal*, February, 1891) has reported the case of an adult, with a history of three attacks of rheumatism, who presented the signs of aortic obstruction and regurgitation. While under observation, during paroxysms of epigastric distress associated with digestive derangement, there was heard what is described as one long murmur distinctly broken up into four component parts. The first was most marked, the last next in intensity and most prolonged, while the intermediate two appeared to be equally faint, soft and short. The radial pulse was bigeminous, a weaker impulse following quickly each primary beat, succeeded in turn by a longer interval and a repetition of the primary beat. While under treatment with salicylate of sodium for rheumatic pains, the patient suddenly died. An autopsy was not permitted.

The *pulsus bigeminus* has been described by Traube and by Hyde Salter. Guttmann asserts that it is almost exclusively associated with obstruction to the circulation, such as may be caused by valvular defects. Anderson, on the other hand, takes the position that the abnormality is a functional neurosis, dependent, in his particular case, upon derangement of innervation affecting the pneumogastric and sympathetic nerves, as it manifested itself after the appearance of symptoms of dyspepsia and vanished with their disappearance.

RESEARCHES ON THE EXTREMES OF TEMPERATURE BORNE BY THE LEUCOCYTES OF HUMAN BLOOD.

MAUREL (*Comptes rend. d. Soc. d. Biol.*, 1890, ii. 538) publishes some very interesting researches upon this subject. He describes the different forms of leucocytes found in the blood, as illustrating somewhat their life-history there. He then details the results of his experiments in subjecting blood to different degrees of temperature, watching meanwhile the effect upon the power of motion and upon the life of the white corpuscles. A degree of cold below 16° C. could only be borne by them for a short time, and 14° C. was immediately fatal. On the other hand, a temperature above 44° C. rapidly threatened their life, while one of 47° C., even for a few minutes, suffices to kill them.

From a clinical standpoint these experiments show that the greatest degree of activity of human leucocytes is witnessed at the temperature of the blood in a normal state, or during a febrile state of slight intensity. As is well known, the axillary temperature is about two degrees less than that of the blood in the interior of the body. It is evident, therefore, that in very high fever, with an axillary temperature of 41° C., or, exceptionally, of 42° C., a point is being approached at which the life of the leucocytes is seriously threatened.

A CASE OF MEDIASTINAL TUMOR.

At a meeting of the Glasgow Pathological and Clinical Society (*Glasgow Medical Journal*, February, 1891) GEMMELL reported the case of a laborer, aged sixty, with cough, expectoration, shortness of breath and a sense of suffocation. The urgent symptoms had existed for six weeks. The face was flushed and bloated, the lower eyelids œdematous. Pulse, temperature, and respiratory frequency presented nothing abnormal. Examination of the lungs revealed the signs of chronic bronchitis. There was no œdema of the lower extremities and no ascites. No lesion of the abdominal viscera was detected. The urine was non-albuminous. The progress of the case suggested the presence of an intra-thoracic tumor. A circumscribed area of dulness was detected in the region of the manubrium sterni. In this situation, the second sound of the heart was "highly musical and of deep-toned quality." There was a difference in the force and rhythm of the radial pulses, the left being weaker than the right and somewhat delayed. No abnormal pulsation was perceptible. No enlarged glands were found above the clavicle, to indicate the presence of malignant disease within the thorax. The position of the trachea was median. The veins of the neck were greatly distended. The face was congested, the lips livid. Respiration was accompanied by distinct stertor, inspiratory and expiratory. The voice was hoarse, the cough not brassy. The mucous membrane of the larynx participated in the œdema. The movements of the vocal bands were normal and, except for a slight linear injection, their general appearance was healthy. The trachea appeared not to be compressed. The patient did not complain of pain or of abnormal sensations. The obstruction to the venous circulation soon gave rise to serious cerebral disturbance, the patient became delirious, then comatose, and death ensued.

Post-mortem examination revealed a growth in the anterior and middle mediastinum, toward the right of the median line, projecting upward into the root of the neck. The mass completely surrounded the superior vena cava and seriously involved the other great venous trunks in the same region. There were nodular projections of the new tissue into the lumen of the superior cava. The growth had not involved the pericardium to any extent, and there was no pericarditis. The tumor was unusually limited and localized, and, although presenting to the naked eye all the features of a cancerous growth, it was found on microscopic examination to be a lympho-sarcoma.

In the discussion, McCall Anderson said that one of the chief points of interest in connection with this class of cases was the diagnosis. It was frequently one between tumor and aneurism. He believed that one distinguishing feature was pressure upon the veins. This was rarely observed in the case of aneurisms.

Hypertrophic Biliary Cirrhosis.

Ghosh (*Indian Medical Gazette*, January, 1891) read a paper before the Calcutta Medical Society on the distinction between biliary cirrhosis and other painless enlargements of the liver. This particular form of cirrhosis occurred in children under two and a half years of age, and almost invariably terminated fatally in from three to twelve months. It manifested itself by a painless enlargement of the liver, which was hard and resistent on palpation, in consequence of a hyperplasia of the interlobular connective-tissue. The organ, at first enlarged, became subsequently diminished in size, from secondary contraction. In some cases, the spleen was also enlarged. There was fever of a continued type, with evening exacerbations, ascites, jaundice, and death from cholæmia. The only etiological element proposed is faulty diet. The disease is becoming more frequent in India and is not seen in European children. It is to be diagnosticated from amyloid disease and enlargement of the liver due to malaria. It is distinguished from the former by the age at which it occurs, its etiology, its rapid and fatal progress, the absence of anæmia and cachexia, the common occurrence of jaundice, the absence of involvement of kidneys, stomach, and intestines, and the anatomical changes. The diagnosis from the enlarged liver of malaria is more difficult. The principal points of distinction, however, are—race; age; sex, males being affected with the biliary form in largest proportion; locality, biliary cirrhosis not being confined to malarious districts; type of fever; absence of cachexia; prognosis; duration and mortality; etiology; results of treatment.

Mercurial Stomatitis.

Fournier (*La Médecine Moderne*, January 15, 1891) discusses the causes and prophylaxis of the stomatitis resulting from the therapeutic administration of mercury. In giving mercury by the mouth, by inunction, by fumigation, or by subcutaneous injection, there is always risk of producing stomatitis. All preparations of mercury, however, are not equally active in this direction. The protiodide deserves the popularity in which it is held. From one-third to three-quarters of a grain daily is ordinarily well borne. Larger doses are apt to produce ptyalism and stomatitis. The bichloride in doses of one-seventh (1) of a grain, once, twice, or three times a day, is well tolerated. It does not salivate because it must be given in small doses so as not to be rejected by the stomach.

Inunctions are most likely to give rise to stomatitis. A drachm of mercurial ointment, well rubbed into the skin, occasions no unpleasant results. When stomatitis follows inunctions, its onset is sudden and its intensity marked.

In administering mercury by subcutaneous injection, stomatitis may be avoided by using minimal doses at intervals of two or three days.

Certain conditions favor the development of mercurial stomatitis. There may be an idiosyncrasy against mercury in any form, the smallest doses, however administered, causing ptyalism, or the appearance of a red rash. Preexisting stomatitis, from whatever cause, invites an intensification from the use of mercury. The mere presence of the teeth seems to be sufficient to induce such a condition, as mercurial stomatitis is not seen in edentulous infants and old persons, or in those employed in mercurial mines who have already lost their teeth.

Females are more susceptible than males to the ptyalizing effects of mercury. Salivation also occurs with greater readiness when inunction is practised upon a delicate surface, as the skin of the scrotum, or where an abrasion exists or the epidermis has been removed.

SURGERY.

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TUMORS OF THE MALE BREAST.

SCHUCHARDT (*Archiv f. klin. Chirurgie*, Bd. xli., Heft 1) publishes an elaborate statistical study of tumors of the male breast.

In all, he has collected four hundred and sixty-nine cases. He finds, contrasting the disease as it affects men and women, that 15 per cent. of all tumors involve the breast, and that of these only 1 per cent. is found attacking the male breast.

The average duration of malignant breast tumors was eight months longer